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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,059	07/15/2003	Jason Zhisheng Gao	NFL-0315	7683

7590 08/06/2004

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EXAMINER	
CASTRO, ARNOLD	
ART UNIT	**PAPER NUMBER**
3747	

DATE MAILED: 08/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/620,059	GAO ET AL.
	Examiner	Art Unit
	Arnold Castro	3747

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *13-18* is/are allowed.

6)☒ Claim(s) *1,4,5,8,9 and 12* is/are rejected.

7)☒ Claim(s) *2,3,6,7,10 and 11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *13052004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, 5, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Freesh (US/4,356,806 A)

3. Freesh describes a device comprising: a particulate filter placed in the EGR stream, and a heat exchanger /cooler placed in the upstream of the filter to reduce the temperature of said EGR stream and to increase the relative humidity. The above device anticipates the claim for the following reason. During patent examination, the pending claims must be "given the broadest reasonable interpretation consistent with the specification." Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969) See also In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997) and In re Cortright, 165 F.3d 1353,1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999). The statement " to extend the useful life of a lubricant in an EGR equipped engine " is merely a statement of intended use. A recitation of the intended use of the claimed

invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See In re Casey, 152 USPQ 235 (CCPA 1967) and In re Otto, 136 USPQ 458, 459 (CCPA 1963). Soot is a natural enemy of diesel crankcase oil, resulting from incomplete combustion of the fuel during service. Its presence at high levels can threaten or impair the reliable operation of the engine at very high levels, suspended soot can become abrasive leading to accelerated wear in boundary contact zones such as cam/cam-follower pairs.

Hence the particulate filter performs the intended function. Secondly, soot is a chemical and therefore the particulate filters are chemical filters. As for the increase of the relative humidity that is inherent because of the cooling performed by the heat exchanger (40). As claimed in claim 5 the disclosed additional filter is not required to anticipate claims since the chemical filter is optional but Freesh does show the optional filter.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freesh 4,356,806 in view of Rohrbach et al. (US 6,379,564).

3. Freesh disclose a device to extend the useful life of a lubricant in an EGR equipped engine comprising: a) An optional chemical filter (41) placed in the EGR stream b) A chemical filter (42) placed just before the intake manifold c) A heat exchanger/cooler (40) placed in the upstream of the chemical filters to reduce the temperature of said EGR stream and to increase the relative humidity. However, Freesh does not disclose expressly an oil filter capable of neutralizing acids in the engine lubricant. Inherently, the engine of Freesh has an oil filter.

Rohrbach discloses an engine oil filter that is capable of neutralizing acids in the engine lubricant.

At the time of the invention it would have been obvious to replace the oil filter of the engine of Freesh with an oil filter disclosed in Rohrbach.

Motivation would have been to increase the life of the oil.

Response to Arguments

4. Applicant's arguments, see Remarks page 9-14 of amendment, filed 14 July 2004, with respect to claims 2, 3, 10, 11, 13-18 have been fully considered and are persuasive. The above claims have being allowed or objected to as being dependent on rejected claim. Applicant's arguments to claims 1, 4, 5, 8, and 9 have been considered but they are not persuasive. Argument that Freesh is not directed to a method or device extending the useful life of a lubricant is irrelevant since that feature is only claimed as intended use. In response to applicant's argument that the prior art uses their invention differently from

applicant, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See In re Casey, 152 USPQ 235 (CCPA 1967) and In re Otto, 136 USPQ 458, 459 (CCPA 1963).

As stated in rejection the particulate filters are equivalent to chemical filters as claimed by applicant since no detail as to the type of chemical filter is claimed.

Allowable Subject Matter

5. Claims 13-18 are allowed.

6. Claims 2, 3, 6, 7, 10, 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is

filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnold Castro whose telephone number is (703) 305-0039. The examiner can normally be reached on 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yuen Henry can be reached on (703) 308-1946. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Arnold Castro
Examiner
Art Unit 3747

AC

MAHMOUD GIMIE
PRIMARY PATENT EXAMINER
ART UNIT 3747